

# Exhibit G



# Dynamic Risk

## Final Report

# Alternatives Analysis for the Straits Pipeline

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**Prepared for**

State of Michigan

**Prepared by**

Dynamic Risk Assessment Systems, Inc.

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products from Canada. Shipment of refined products from Canada to PADD 2 (which includes Michigan) have, however, been negligible in recent years.<sup>36</sup>

## 4.2.2 Alternative 6a – Partial Abandonment

Abandoning the Straits Crossing would eliminate Line 5 deliveries to Sarnia. This would drastically reduce the flow within each of the pipeline segments that remain. Of the NGLs transported on Line 5, less than 5% are delivered into Rapid River. Lewiston oil injections are also less than 5% of Line 5 current throughput and do not appear to be increasing. Given the low throughput from just these volumes, Appendix K demonstrates that the flow rate on each respective segment would be too low to achieve practical pipeline velocity rates for transportation within the existing 30-in. pipeline. Accordingly, it would likely be impractical to continue to operate either of the pipe segments.

Even if pipeline velocities could be achieved, operating costs for the pipeline segments would have to be entirely borne by the Rapid River and Lewiston shippers. This would likely render these alternatives uneconomic relative to other transportation options, such as trucking.

Finally, as there is no downstream market on the segmented pipeline for the depropanized return stream of NGLs processed at Rapid River, the delivery of NGLs to Rapid River would need to be returned by truck to an NGL terminal or pipeline. This cost would further limit the viability of continued use of the Upper Peninsula pipe segment. Abandonment of this section would also undermine the ongoing viability of the depropanization facility. Therefore, local alternatives for the Upper Peninsula were assessed as alternative propane supplies rather than alternative NGL supplies.

To conclude, partial abandonment was screened out for logistical and cost reasons. The abandonment of the Straits Crossing would in effect mean the entire pipeline would be abandoned as it would be both impractical and not viable to operate either segment of Line 5 to continue to accommodate the Michigan deliveries at Rapid River or the Lewiston injections. This full abandonment scenario and its associated implications are described in Alternative 6b.

## 4.2.3 Alternative 6b – Full Abandonment

### 4.2.3.1 Rapid River Propane Supply

With the abandonment of Line 5, Rapid River would need to access an alternate propane supply to sustain its commercial function as a distribution point for local markets.

Residential propane prices for the State of Michigan for the past two winters are shown in Appendix G. Propane prices for the 2016/17 winter period are \$0.10/gal to \$0.25/gal higher than the previous winter. Prices in December of 2016 were in the range of \$1.80/gal.

With no NGL supply to the Rapid River facility, the depropanizer facility would become stranded and would likely be decommissioned, abandoned, or removed.<sup>37</sup> The site's

<sup>36</sup>US EIA. 2017. Petroleum and Other Liquids. "Weekly Midwest (PADD 2) Imports of Finished Motor Gasoline". For example, records indicate nil values since May 8, 2015 (accessed September 2017).

<sup>37</sup>This study has not assessed the options for the optimal use of the Rapid River facility. As it is owned by Plains Midstream, such a decision will be its to make within the context of its continent-wide business decisions.